AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for amplifying a microRNA molecule to produce DNA molecules, the method comprising the steps of:

(a) producing a first DNA molecule that is complementary to a target microRNA molecule using primer extension with an extension primer comprising a first portion having a length from 3 to 17 nucleotides selected to hybridize to a portion of the target microRNA molecule and a second portion that hybridizes to the complement of a universal forward primer; and

(b) amplifying the first DNA molecule to produce amplified DNA molecules using the universal forward primer and a reverse primer, wherein the reverse primer is selected to specifically hybridize to a portion of the first DNA molecule that is complementary to the target microRNA molecule under defined hybridization conditions, and wherein ~~at least one of the universal forward primer and~~ the reverse primer comprises at least one locked nucleic acid molecule.

2. (Canceled)

3. (Original) A method of Claim 1 wherein the primer extension uses an extension primer having a length in the range of from 10 to 100 nucleotides.

4. (Original) A method of Claim 1 wherein the primer extension uses an extension primer having a length in the range of from 20 to 35 nucleotides.

5. (Canceled)

6. (Previously presented) A method of Claim 1 wherein the first portion of the extension primer has a length in the range of from 6 to 17 nucleotides.

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7. (Canceled)

8. (Previously presented) A method of Claim 1 wherein the second portion of the extension primer has a length of from 18 to 25 nucleotides.

9. (Previously presented) A method of Claim 1 wherein the second portion of the extension primer has a nucleic acid sequence comprising the nucleic acid sequence of SEQ ID NO:1.

10. (Original) A method of Claim 1 wherein the universal forward primer has a length in the range of from 16 nucleotides to 100 nucleotides.

11. (Original) A method of Claim 1 wherein the universal forward primer consists of the nucleic acid sequence set forth in SEQ ID NO:13.

12. (Previously presented) A method of Claim 1 wherein the universal forward primer hybridizes to the complement of the second portion of the extension primer.

13. (Previously presented) A method of Claim 1 wherein the universal forward primer comprises at least one locked nucleic acid molecule.

14. (Previously presented) A method of Claim 1 wherein the universal forward primer comprises from 1 to 25 locked nucleic acid molecules.

15. (Original) A method of Claim 1 wherein the reverse primer has a length in the range of from 10 nucleotides to 100 nucleotides.

16. (Canceled)

17. (Previously presented) A method of Claim 1 wherein the reverse primer comprises from 1 to 25 locked nucleic acid molecules.

18. (Canceled)

19. (Original) A method of Claim 1 further comprising the step of measuring the amount of amplified DNA molecules.

20. (Original) A method of Claim 1 wherein amplification is achieved by multiple successive PCR reactions.

21. (Currently amended) A method for measuring the amount of a target microRNA in a sample from a living organism, the method comprising the step of measuring the amount of a target microRNA molecule in a multiplicity of different cell types within a living organism, wherein the amount of the target microRNA molecule is measured by a method comprising the steps of:

(1) producing a first DNA molecule complementary to the target microRNA molecule in the sample using primer extension with an extension primer comprising a first portion having a length from 3 to 17 nucleotides selected to hybridize to a portion of the target microRNA molecule and a second portion that hybridizes to the complement of a universal forward primer;

(2) amplifying the first DNA molecule to produce amplified DNA molecules using the universal forward and a reverse primer, wherein the reverse primer is selected to specifically hybridize to a portion of the first DNA molecule that is complementary to the target microRNA molecule under defined hybridization conditions, and wherein ~~at least one of the universal forward primer and~~ the reverse primer comprises at least one locked nucleic acid molecule; and

(3) measuring the amount of the amplified DNA molecules.

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22. (Canceled)

23. (Original) The method of Claim 21, wherein the amount of the amplified DNA molecules are measured using fluorescence-based quantitative PCR.

24. (Original) The method of Claim 21, wherein the amount of the amplified DNA molecules are measured using SYBR green dye.

25–42. (Canceled)

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